

AUTHORS:

Glushkova, V. P., and Kocheshkov, K. A. 20-2-19/50
Corresponding Member AN SSSR.

TITLE:

A New Method of Synthesis for Organothallium Compounds of the $ArTlX_2$ Class (Novyy metod sinteza talliyevykh soedineniy klassa $ArTlX_2$).

PERIODICAL: Doklady AN SSSR, 1957. Vol. 116, Nr 2. pp. 235-236 (USSR)

ABSTRACT:

The absence of reliable production methods represents a considerable gap in the chemistry of the above-mentioned compounds and therefore the $ArTlX_2$ -class is not easily accessible. The Challenger method (over organoboron compounds) consists of several stages and besides leads to secondary processes. Thus some authors described $ArTlX_2$ (X=haloid) as colored substances, when produced according to Challenger, whereas in reality they are colorless (see below). In this paper the authors for the first time described the product on method of $ArTlX_2$ (X=rest of an organic acid) with the use of organic acids of trivalent thallium in a reaction with organomercury compounds. The reaction which rapidly proceeds

Card 1/3

A New Method of Synthesis for Organothallium Compounds of the $ArTlX_2$ -Class 20-2-19/90

at room temperature leads with good yields to excellently crystallizing compounds of the $ArTlX_2$ -class. They are stable, do not tend toward secondary transformations and are colorless. When the salts of organic acids are used, the reaction can at choice (according to the molar relations selected) be made to take two directions (equations 1 and 2). When starting from the corresponding organomercury compounds, the organothallium compounds $ArTl(OOCR)_2$ or $Ar_2TlOOCR$ can also be attained with substituents in the nucleus. The compounds obtained by the authors are identical with those that are synthesized according to their own method of a direct thallation. Phenylthallium-isobutyrate can thus be produced from benzene and thallium-triisobutyrate (90 % yield). The reaction "inverse to disproportionation" also leads to colorless organothallium compounds with a quantitative yield. The replacement of the rest of an organic acid by halogen did here not lead to the formation of color either. Thus the color described in publications is the result of admixtures. An experimental part with the usual data follows.

Card 2/3

A New Method of Synthesis for Organothallium Compounds of the ArTlX_2 -Class 40-2. 19/50

There are 6 references, 4 of which are Slavic

ASSOCIATION: Physico-chemical Institute imeni L. Ya. Karpov
Fiziko-Khimicheskiy institut im. L. Ya. Karpova).

SUBMITTED: May 10, 1957

AVAILABLE: Library of Congress

Card 3/3

001/00-5-5-5/24

AUTHORS: Zvonkova, Z.V. and Glushkova, V.P.

TITLE: The Crystal Structure of p-bromphenylboric Acid
(Kristallicheskiye stroeniye p-bromfenil'bernoy kisloty)

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 5, pp 559-563 (USSR)

ABSTRACT: 40 crystals of $p\text{-BrC}_6\text{H}_4\text{B(OH)}_2$ from various solvents were examined by X-ray diffraction. There appeared to be no piezoelectric effect. The cell was found to be hexagonal with $a = 28.73$ and $c = 9.74$ Å and space group $C6/mcc = C_{6h}^2$ with $Z = 36$ and $d_{\text{calc.}} = 1.72$; $d_{\text{obs.}} = 1.67$ g/cm³. There are 576 atoms in the unit cell. The Patterson functions $P^2(hk0)$ and $P^2(hkl)$ were constructed which showed only peaks corresponding to Br-Br vectors. The Br atoms were found to lie in mirror planes with $z = 0$ and $z = 1/2$. It was assumed that the atoms Br, C₁, C₄ and B lie triply in the positions 12(e). The atoms C₂, C₃, C₅, C₆, O₁, O₂ and H occupy the general positions 24(m). The

Card1/5

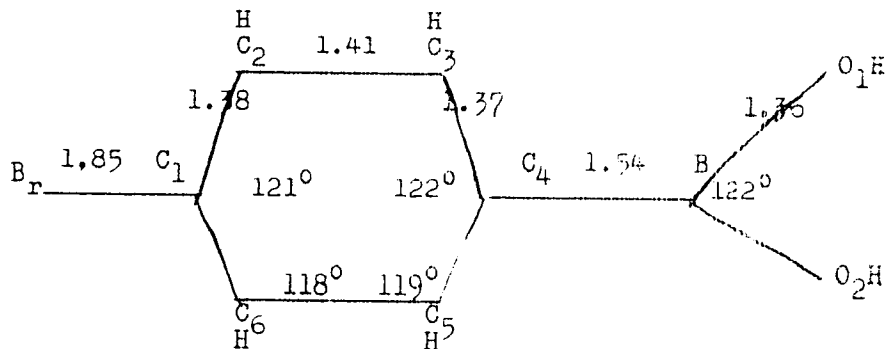
NOV/70-6-3-5/24
The Crystal Structure of p-bromphenylboric Acid

co-ordinates of the three independent Br atoms were found from F^2 series. Weissenberg photographs were taken for 7 layers about the c axis and these were connected by a -axis photographs. In all, 588 independent reflections were collected. The sections at $xy0$ and $x, y, 0.123$ were calculated. The heights of the three Br peaks were 85, 91 and 82 and of the C atoms were 16-20. The Br peaks were thought to be slightly lowered by their antisymmetric arrangement. The final co-ordinates are entered in Table 2, p 560. When a temperature factor of $B=4$ was applied, a final reliability factor of $R=24\%$ was obtained. The angles relating the plane of the molecule to the 010 plane are $\phi_1 = 41^\circ$, $\phi_2 = 52^\circ$ and $\phi_3 = 50^\circ$. The bond lengths and angles are:

Card 2/5

SOV/70-5-5-5/24

The Crystal Structure of p-bromophenylboric Acid



(Fig 3, p 561).

The Br-C bond length is 1.85 Å comparing with the values of 1.85 and 1.87 reported in other compounds. The maximum value of the deviation of individual molecular dimensions from the mean over the three molecules is 0.03 Å. The C₁-C₂ (and C₁-C₆) bonds are shortened to 1.38 and the C₃-C₄ (and C₄-C₅) to 1.37. The C₂-C₃ (C₅-C₆) bonds are

Card3/5

SCV/70-3-5-5/24

The Crystal Structure of p-bromophenylboric Acid

lengthened to 1.41. Similar observations have been made in benzoic acid. In captax (2-mercaptobenzthiazol) deformation was also measured. These results show the changes in the interatomic distances due to the differing participation of the s and p electrons in the bonds. An estimate of the intermolecular radius of C can be obtained (1.67 Å) which is near to the values in graphite (1.675) and in captax (1.685). The introduction of the acceptor group $B(OH)_2$ decreases the radius from the value of 1.80 found in benzene to this value. The benzene nucleus has become finer and the pi-electron cloud is decreased. Acknowledgments are made to Z.P. Linina, A.N. Khvatkina and A.N. Abramova.

Card 4/5

The Crystal Structure of p-bromophenylboric Acid ^{SOV/70-3-5-5/24}

There are 6 figures, 2 tables and 10 references, 6 of which are Soviet, 3 English and 1 Scandinavian

ASSOCIATION: Fiziko-khimicheskiy institut im. L.Ya. Karpova
(Physico-chemical Institute im. L. Ya. Karpov)

SUBMITTED: July 1, 1957

Card 5/5

GLUSHKOVA, V. P.: Master Chem Sci (A/c) -- "Investigation of organophosphorus compounds". Moscow, 1950. 10 pp (incl 2 experimental examples of the lead Sci USSR), 100 copies (RU, no 1st, 1st 1, 101)

66484

5(2,3) 5. 3830

AUTHORS: Glushkova, Y. I. ; Dolinskaya, L. I. ; Koshcheyev, K. A. ;
Corresponding Member, AN SSSR

TITLE: Metallization of polymers

PERIODICAL: Doklady Akad. Nauk SSSR, 1977, Vol. 238, No. 1,
p. 100-102, 10 figs.

ABSTRACT: The introduction of metallic atoms into polymers (called "metallization"), may play a certain role in the investigation of the structure of polymers (for example, as well as in the change of their properties). In the present paper the authors describe a few recent and interesting results and mention. The authors also give a brief review of the literature on metallization of polymers. It is shown that metallization of polymers is difficult. Higher polymers are solid substances. In solutions they can be metallized by only a few solvents, which cannot be easily metallized themselves. The most other-wise with the metallization of polymers. Investigations were carried out of: 1) the introduction of metallic atoms into poly- α -vinylthiophene in benzene; 2) introduction of Hg into the same compound in benzene; and 3) introduction of Hg into polymers in nitrobenzene (and in polyvinylfuran and polystyrene). Mercury nitrosulfate was used as the metallizing agent in metallization.

Card 1/5

4

66484

Metallization of Polymers

CONFIDENTIAL

SUBMITTEL: July 2, 1966

[Handwritten signature]

Card 3/3

ZVONKOVA, Z.V.; ASTAKHOVA, L.I.; GLUSHKOVA, V.P.

Atomic structure of tetramethylthiourea. Kristallografiya 5 no.4:
147-552 J1-A; '60. (MIRA 13:9)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.
(Urea)

GLUSHKOVA, V.P.

S/C20/62/143/003/013/018
B101/B110

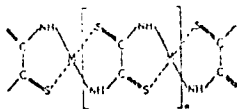
15.8340

AUTHORS: Vorzhennikov, V. M., Zvonkova, Z. V., Rukhadze, Ye. G.,
Zhdanov, G. S., and Glushkova, V. P.

TITLE: Electrical conductivity and activation energy of some
dithio oxamide-, N-substituted dithiocarbamate-, and
thiocyanate (Cu, Co, Ni) polymers

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 5, 1962,
1131-1134

TEXT: The electrical conductivity, σ , and the activation energy, E , of
the following polychelates were studied:



(1),

Card 1/2

Electrical conductivity and ...

S/020/62/143/005/013/018
B101/3110

Polymer	M, R	T, °K	$\sigma_{290^\circ K}$ $\text{ohm}^{-1} \cdot \text{cm}^{-1}$	σ_0 $\text{ohm}^{-1} \cdot \text{cm}^{-1}$	E, ev
I	Cu	290-350	$4 \cdot 10^{-6}$	$1 \cdot 10^{-4}$	0.6
"	Ni	290-500	$2 \cdot 10^{-11}$	$7 \cdot 10^{-1}$	0.6
"	Co	400-500	$7 \cdot 10^{-16}$	$1 \cdot 10^{-3}$	0.7
II	p-C ₆ H ₄ -	290-425	$7 \cdot 10^{-11}$	1	0.42; 0.62
"	p,p'-(C ₆ H ₄) ₂ -	290-450	$5 \cdot 10^{-13}$	$1 \cdot 10^{-3}$	0.36; 0.60
"	(CH ₂) ₆	310-360	$1 \cdot 10^{-13}$	$2 \cdot 10^{-1}$	0.72
III	p-C ₆ H ₄ -	370-460	$9 \cdot 10^{-12}$	$1 \cdot 10^{-3}$	0.58
"	p,p'-(C ₆ H ₄) ₂ -	360-460	$3.5 \cdot 10^{-12}$	$3 \cdot 10^{-3}$	0.62
"	(CH ₂) ₆	400-460	$1.7 \cdot 10^{-12}$	$5 \cdot 10^{-3}$	0.76
"	(CH ₂) ₂	400-460	$8 \cdot 10^{-13}$	$1 \cdot 10^{-3}$	0.74

Card 3/5

S/020/62/143/005/013/018
B101/B110

Electrical conductivity and ...

• extrapolated; ** first figure at $T < 360^\circ\text{K}$, second figure at $T > 360^\circ\text{K}$; *** $\sigma_{400^\circ\text{K}}$. In the compounds II and III the higher σ and the lower E of the phenylene derivatives are explained by the effect of the π bonds which is reduced in the diphenylene group owing to the angle between the ring planes. $\log \sigma$ is a linear function of $1/T$, the straight line has, however, a salient point at 360°K for compounds II. The susceptibility of compounds III is $3.5 \mu\text{B}$. Compounds with the bridge groups S-3-C-N- have semiconductor properties. Also CuSCN shows a salient point in the curve $\log \sigma$ versus $1/T$ at the beginning, $E_1 = 0.4 \text{ ev}$, after a 2-hr heating at 400°C , $E_2 = 0.1 \text{ ev}$. There are 4 figures and 1 table. The most important English-language references are: R. M. Hurd, G. De La Mater et al., J. Am. Chem. Soc., 17, 4454 (1940).

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova
(Physicochemical Institute named L. Ya. Karpov)

Card 4/5

L 29933-65 EPF(c)/EPA(s)-2/ENP(j)/ENT(m)/ENP(b)/ENP(t) Pc-4/Pr-4/Pt-10/2
Pad IJP(c)/RPL RM/JD/HM
ACCESSION NR: AP5004602 S/0020/65/160/002/0405/0403

AUTHOR: Terent'yev, A. P. (Corresponding member AN SSSR); Vozzhennikov, V. M.;
Kolninov, O. V.; Zvonkovz, Z. V.; Rukhadze, Ye. G.; Glushkova, V. P.; Barankina,
V. V.

TITLE: Semiconducting and optical properties of copper, nickel, zinc, and cadmium
dithiocarbamates

SOURCE: AN SSSR. Doklady, v. 160, no. 2, 1965, 405-408

TOPIC TAGS: copper dithiocarbamate, nickel dithiocarbamate, zinc dithiocarbamate,
cadmium dithiocarbamate, dithiocarbamate semiconducting property, dithiocarbamate
optical property, organic semiconductor, chelate electrical property, polychelate con-
ductivity, activation energy

ABSTRACT: This paper is part of a study of a series of chelates and polychelates aimed
at determining the dependence of their electrical properties on their atomic structure and
nature of their chemical bonds: this in turn is vital in the synthesis of organic semicon-
ductors. In this work, it was found that the electrical conductivity depends on the concen-
tration of the metal in the sample more than on the nature of the metal, as indicated by
the highly conductive copper compounds. All the chelates and polychelates studied were
substances with high electrical resistance. On the basis of their absorption spectra,

Corr 1/2

L 25933-65

ACCESSION NR: AP5004602

several types of electronic transitions were established, and the thermal activation energy E_{thorm} was compared with the optical activation energy E_{opt} . It was concluded that the semiconducting parameters are determined primarily by the nature of the metal - ligand chemical bond, and not by the crystal structure or superstructure. Orig. art. has: 3 figures, 1 table and 2 formulas.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical institute); Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow state university)

SUBMITTED: 04Aug84

ENCL: 00

SUB CODE: 00, EN

NO REF SOV: 004

OTHER: 000

Card 2/2

ACC NR: AP7005108

SOURCE CODE: UR/0079/66/036/009/1690/1693

GLUSHKOVA, V. P., KOCHESHKOV, K. A.

"Salts of the Organic Acids of Trivalent Thallium"

Moscow, Zhurnal Obshchey Khimii, Vol 36, No 2, 66, pp 1690-1693

Abstract: These salts are used as starting substances for the synthesis of organothallium compounds or in exchange reactions with organomercuric compounds. The authors synthesized for the first time the following organic acid salts of trivalent thallium: thallium triisobutyrate, thallium tripropionate, thallium tri-n-caprylate, and thallium tribenzoate. The first two compounds were obtained by dissolving thallium trioxide Tl_2O_3 in boiling isobutyric and propionic acids respectively, while thallium tri-n-caprylate and tribenzoate were obtained by reacylation. All of these salts hydrolyze in air but are quite stable when stored over phosphorus pentoxide. Their melting points are fairly high (119-172.5°C) but they are lower than the melting points of the corresponding organic acid salts of monovalent thallium. When treated with hydrazine hydrate, the salts of trivalent thallium are reduced to salts of monovalent thallium of the corresponding acid. [JPIS: 38,970]

ORG: none

TOPIC TAGS: thallium compound, organometallic compound, organomercury compound

SUB CODE: 07 / SUBM DATE: 01Jul65 / ORIG REF: 002 / OTH REF: 002

Card 1/1

UDC: 546.683 + 547.13

POSTOL, G.S.; CHERNYKH, Ye.F.; KRAVTSOVA, K.K.; GLUSHKOVA, V.S.

Dynamics of rheumatic fever incidence in children in Khabarovsk Territory according to hospital data for five years. Vop.okh. mat. i det. 7 no.12:79 D'62. (MIRA 16:7)

1. Iz kliniki detskikh bolezney Khabarovskogo meditsinskogo instituta i Khabarovskogo krayevogo otdela zdravookhraneniya.
(CHILDREN--DISEASES) (GYNECOLOGY)

STAYV. M.M., T.O. HALL, V.V.

THE ... BETWEEN THE ... REGARDING ...
AND ... OF THE ... DEFENSE ...
... ...

... ...
... ...

GLUSHKOVA, Ye.K., nauchnyy sotrudnik

Conditioning of young children to cold by baths. Gig. i san. 21
no.11:28-36 N '56. (MLRA 10:2)

1. Iz otdela gigiyeny Nauchno-issledovatel'skogo pediatricheskogo
instituta. Gig. i san.21 no.11:28-36 N '56. (MLRA 10:2)

(TEMPERATURE

conditioning of young child. to cold temperature)

GLUSHKOVA, Ye. K., Candidate Med Sci (diss) -- "The hygienic characteristics of positive films of children and conditions for their use". Moscow, 1959. 12 pp (Acad Pedagogical Sci RSFSR, Sci Res Inst of Physical Training and School Hygiene), 150 copies (KL, No 24, 1959, 149)

GIUSHKOVA, Ye.K.

Children's filterips and their demonstration from the hygienic
point of view. Gig.i san. 25 no.1:41-46 Ja '60. (MIRA 13:5)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta sanitarii
i gigiyeny imeni F.F. Erismana Ministerstva zdravookhraneniya RSFSR.
(AUDIO-VISUAL AIDS)

GLUSHKOVA, Ye.K.

Some hygienic problems in television viewing of children. Gig.
i san. no. 10:22-27 0 '60. (MIRA 13:12)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta sanitarii
i gigiyeny imeni F.F. Erismana Ministerstva zdravookhraneniya RSFSR.
(TELEVISION---HYGIENIC ASPECTS)

GLUSHKOVA, Ye.K.

Some hygienic problems of planning classrooms and the arrangement of furniture. Nauch. inform. Otd. nauch. med. inform. AMN SSSR no.1:52-53 '61 (MIRA 16:11)

1. Institut gigiyeny detey i podrostkov (ispolnyayushchiy obyazannosti direktora - prof. S.M. Grombakh) AMN SSSR, Moskva.

*

BELOSTOTSKAYA, Ye.M.; GLUSHKOVA, Ye.K.; GRIGORUKH, S.M.; SUMARENKO, A.G.;
TELESHEV, V.A.; TIMOKHINA, Ye.A.; PROTOPOLOVA, V.A.

Hygienic problems in the organization of work of students in agriculture.
Gig. i san. 26 no.6:52-57 Ju '61. (MIA 15:5)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny imeni
F.F.Erismana Ministerstva zdoravookhraneniya RSFSR i Stavropol'skoy
krayevoy sanitarno-epidemiologicheskoy stantsii.
(CHILDREN IN AGRICULTURE--HYGIENIC ASPECTS)

GLUSHKOVA, Ye.K., mladshiy nauchnyy sotrudnik

"The angle of vision" as a supplementary criterion in planning
class rooms and the arrangement of furniture. Gig.i san. 26
no.12:34-38 D '61. (MIRA 15:9)

1. Iz Instituta gigiyeny detey i podrostkov AMN SSSR.
(SCHOOL HYGIENE)

GLUSHKOVA, Ye. P.
KOZIK, S.M.; KALININ, Yu.D., professor; AFANAS'YEVA, V.I., kandidat fiziko-matematicheskikh nauk; PENKEVICH, M.S., kandidat fiziko-matematicheskikh nauk; GLUSHKOVA, Ye.P.; KUZNETSOVA, Z.S.; BELOUSOVA, M.A.; SOLOVEYCHIK, A.A., tekhnicheskii redaktor

[Manual on variation in the magnetic field of the U.S.S.R.]
Spravochnik po peremennomu magnitnomu poliu SSSR. Pod red. V.I. Afanas'evoi. Leningrad, Gidrometeor.izd-vo, 1954. 265 p. (MIRA 10:7)

1. Leningrad. Nauchno-issledovatel'skiy institut zemnogo magnetizma.
2. Nauchno-issledovatel'skiy institut zemnogo magnetizma (for Kalinin, Afanas'yeva, Belousova)
3. Tashkentskaya nauchno-issledovatel'skaya geofizicheskaya observatoriya (for Kozik).
4. Glavnaya Geofizicheskaya observatoriya (for Penkevich, Glushkova, Kuznetsova) (Magnetism, Terrestrial)

L 44430-66 EWT(1)/FCG GW
ACC NR: AT6023732 SOURCE CODE: UR/2831/65/000/014/0104/0116

AUTHOR: Glushkova, Ye. P.

ORG: none

TITLE: Some peculiarities of magnetoionospheric disturbances in the transitional zone

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. V razdel programmy MGG: Ionosfera. Sbornik statey, no. 14, 1965. Ionosfernyye issledovaniya, 104-116

TOPIC TAGS: magnetic storm, ionosphere disturbance, geomagnetic field, aurora, Van Allen belt

ABSTRACT: The author discussed in detail peculiarities of magnetoionospheric disturbances in the transition zone; the upper limits in the Eastern Hemisphere are near 62 N and in the Western Hemisphere near 42 N, and the lower limits in the Eastern and Western Hemispheres are 55 N and 35 N, respectively and are

Card 1/2

L 44430-66

ACC NR: AT6023732

located near the auroral zone. Observations covered the period extending mainly over the last months of 1958 and most of 1959 because the most complete data on ionospheric observations made with vertical soundings made available to the author covered this period. The article shows that during severe, very strong magnetic storms, D_E -variations of H and Z components of the geomagnetic field occur in synphases. Phenomena characteristic of the auroral-zone disturbances are observed in the ionosphere. Blackouts are observed only in cases during the positive phase of a storm when a sudden peak in the H component, warns of the approach of the current system to the observation point. Moreover, the negative phase of the storm should be well developed. As the transition zone is located approximately in the latitudes where the outer radiation belt is closest to the earth's surface, it is suggested that there may be connection between certain phenomena observed during magnetoionospheric disturbances and the movement of particles in the outer radiation belt. The author is extremely grateful to the scientific associates of AANII, A. S. Besprozvanuoya and A. I. Ol', for valuable suggestions made in course of this work. Orig. art. has: 6 figures. [GC]

SUB CODE: 08, 04, 20/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 009/

Card 2/2 *90*

Glushkova, Ye. P.

37-12 -4/12

AUTHOR: Penkevich, M. S., Glushkova, Ye. P., Kuznetsova, Z. S.

TITLE: Some Common Regularities in the Daily Variations of the Earth's Magnetic Field Established by Soviet Polar Observatories
(Nekotoryye obshchiye zakonomernosti sutochnykh variatsiy magnitnogo polya zemli po dannym Sovetskikh polynarnykh observatoriy)

PERIODICAL: Trudy Nauchno-issledovatel'skogo instituta zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln, 1957, Nr 12 (22), pp. 73-85 (USSR)

ABSTRACT: To analyze a very complicated pattern of magnetic variations in polar regions, long-range observations were studied in regard to declination (D), horizontal component (H), vertical component (Z), and the variations of total force (δF). The study covered both quiet and disturbed days, grouped into clusters of summer, winter and equinoctial observations. For quiet days the pattern of variations was steady, with only the amplitudes varying. This steady

Card 1/3

Some Common Regularities in the Daily Variations (Con't)

37-12-4/12

pattern was, as a rule, sustained even on disturbed days, but some phenomena differed from those observed on quiet days, e.g., it was found that on the days of minimum magnetic activity (quiet days), a twin wave appeared which was not seen on days of maximum magnetic activity. The article examines the relationship between magnetic amplitudes and solar and magnetic activities, as observed in moderate latitudes. This relationship is reduced to the following formula: $A = A_0 + \frac{1}{2}W$, in which A is the amplitude of magnetic vibrations and W the index of solar activity (equal to the relative number of sun spots). It was found that W , characterizing mainly the short wave (ultraviolet radiation), has no bearing on corpuscular radiation. The best tool for evaluating objectively magnetic amplitudes on disturbed days is the so-called K index, which is calculated from 3-hour intervals (universal time). It was established that the amplitudes of magnetic values grow with latitude, but start to decrease at a certain distance from the pole. In high latitudes, the shape of the distributive curve was found to be of the parabolic type with the apex lying close to 70° latitude. This dependence on latitude is analyzed for quiet and disturbed days, and for the indices concerned

Card 2/3

1/31

3/162/62/000/007/140/149
0320/0-01

7/1/71
AUTHOR: Gushkova, Ye. P.

TITLE: Preliminary results of investigating magneto-iono-
spheric disturbances at Voyeykovo

PERIODICAL: Referativnyi zhurnal, fizika, no. 7, 1962, 10, ab-
stract 7G166 (V sb. Ionosfern. issledovaniya, no. 6,
M., AN SSSR, 1961, 46-51)

TEXT: The data of the Voyeykovo magneto-ionospheric observatory
(near Leningrad) for the period August 1950 - December 1953 were
used to study the relation of different E_s types to the magnetic
activity. Mid-latitude E_s types are, on the whole, observed on
quiet days. The polar r and α types appear during large and very
large magnetic storms. 2 Abstractor's note: Complete translation. 3

Card 1/1

GLUSHKOVSKIY, A.Ye.

Malignization of one of the foci of multiple chondromatosis. Vest. rent.
1 rad. 39 no.4:72-73 JI-Ag '64. (MIRA 18:7)

1. Gorodskaya bol'nitsa imeni Semashko, gorod Smela Cherkasskoy oblasti.

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515430002-1

1. The first of the two main points is that the

the second of the two main points is that the

the third of the two main points is that the

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515430002-1"

L 8376-65 EPR Ps-4 OSD/AFWL/HSD(gs)/RAEM(t) WW

ACCESSION NR: AR4044028

8/0058/51/000/011/A031/A031

SOURCE: Ref. zh. Fizika, Abs. 11A308

AUTHOR: Glushkovskiy, M. Ye.

TITLE: SSO-1 stroboscopic oscillograph

CITED SOURCE: Tr. 5-y. Nauchno-tekhn. konferentsii po yadern. radioelektronike,
1961. M., Gosatomizdat, 1962, 53-65

TOPIC TAGS: oscillograph, stroboscopic oscillograph/SSO-1 stroboscopic oscillograph

TRANSLATION: For oscillography of periodic processes of nanosecond duration there is used more and more the stroboscopic method, in which a broad transmission band is combined with high sensitivity. On the screen of the stroboscopic oscillograph there

Card 1/2

L 8376-68

ACCESSION NR: AR4044028

output signals has three stages and assures amplification of $(1-5) \cdot 10^3$. The sweep generator is constructed using a Packla circuit and generates sawtooth oscillations with a period of 0.1-1 sec in an auto-oscillation regime. There is

given a number of circuits of the line, which is the same as the number of

SUB CODE: EC

ENCL: 00

Card

2/2

PLOTNIKOVA, M.I.; KARDOPOL'TSEVA, O.I.; SALT'YKOV, O.G.; UMANETS, V.N.;
GLUSHKOVSKIY, I.B.

Stratigraphy and lithology of "interstream pebble beds" in the
Markha-Tyung interfluvial and paleogeography of the time of their
accumulation in connection with the formation of diamond-
bearing placer deposits in the middle Markha Basin. Trudy
IAFAN AN SSSR Ser. geol. no.9:123-141 '63. (MIRA 10:12)

GLUSHKOVSKIY, M.Ye.

Stroboscopic oscillograph for monitoring nanosecond pulse signals.
Izv. vys. ucheb. zav.; radiotekh. 6 no.1:3-14 Ja-F '63. (MIRA 16:3)

1. Rekomendovana kafedroy radioperedayushchikh ustroystv Kiyevskogo
ordena Lenina politekhnicheskogo instituta.
(Cathode ray oscillograph) (Pulse techniques (Electronics))

GLUSHKOVSKIY, M. Ie.

Stroboscopic oscillograph with recording on an EPP-05MI potentiometer. Prib. i tekhn. eksp. 8 no. 5:114-118 S-0 '63.
(MIPA 15612)

L 40724-65

ACCESSION NR: AP5012179

UR/0066/64/000/005/0022/0024

AUTHOR: Glushnev, M. P. (Engineer)

TITLE: Cold-storage plants in permafrost regions

SOURCE: Kholodil'naya tekhnika, no. 5, 1964, 22-24

TOPIC TAGS: refrigeration engineering, structural engineering

ABSTRACT: The article is a brief description of cold-storage plants in use in Soviet permafrost areas, the Chukotka region being taken as typical.

Card 1/3

L 40724-65

ACCESSION NR: AP5012179

They may be single- or multi-level, simple (for storing one food, or complex (for several foods). A permafrost cold-storage plant includes four essential elements: entrance, shaft, tunnel and storage chamber(s). The

Orig. art. has: 2 figures.

Card 2/3

Agricultural Experimental Station))

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, GO

NO REF SOV: 000

OTHER: 000

JPAS

Card

3/3

GLUSHNEV, M. P., Chief Vet.
Department of Agriculture, Evenkii national okrug
"Treatment of hoofs of reindeers."
SO: Veterinariya 27(11), 1950, p. 46 *card*

GLUSHNEV, M.P., Vet.

Evenkiiskii National Okrug.

"Shady barns as a measure for prevention of tuberculosis of
reindeer."

SO: Vet. 28 (5) 1951, p. 47 *card*

СОРКЛОВ, С.Я., БЛУМОВ, М.Р.

Резюме

Детерминированное поведение системы в режиме. Состояние, 14, No. 1, 1955.

Monthly List of Russian Acquisitions, Library of Congress, June 1955. Unpublished.

9. Monthly List of Russian Accessions, Library of Congress, _____ 1953. Incl.

GLUSHNEV, M.P., veterinarnyy vrach.

Gas chamber for reindeer. Veterinariia 30 no.11:50 E '53.
(MLRA 6:11)

1. Turinskaya vetbaklaboratoriya, Krasnoyarskogo kraia.

GLUSHNEV, M. P.

"Improvements and New Methods in the Fight Against Itchy Scab in Northern Deer." Cand Vet Sci, Leningrad Veterinary Inst, Min Higher Education, Leningrad, 1954. (EL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

USSR/Diseases of Farm Animals. Arachno-Entomoses.

R

Abs Jour: Ref Zhur-Biol., No 15, 1958, 69510.

Author : Glushnev, M. P.

Inst : Far Eastern Scientific Research Institute of
Agriculture.

Title : Experience in Combatting the Mange of Reindeer on the
Chukotka Peninsula.

Orig Pub: Byul. nauchno-tekhn. inform. Dal'nevost. n.-i. in-
ta s. kh., 1957, No 4, 38-41.

Abstract: For the treatment and prophylaxis of mange in reindeer,
hexachlorocyclohexane-croelin emulsion was used by
way of spraying of animals or dipping them in portable
or stationary tubs. When dipping was resorted to,
cases of poisoning of fawns by hexachlorocyclohexane
occurred as a result of the stratification of the

Card : 1/2

BUNIN, G., inzh.; MOSENEV, S., inzh.

Atom, magnet, and suspension are the tools of coal preparation.

Izv. tekhn. 5 no. 8: 29-31 Aug 1961.

(MIRA 14:12)

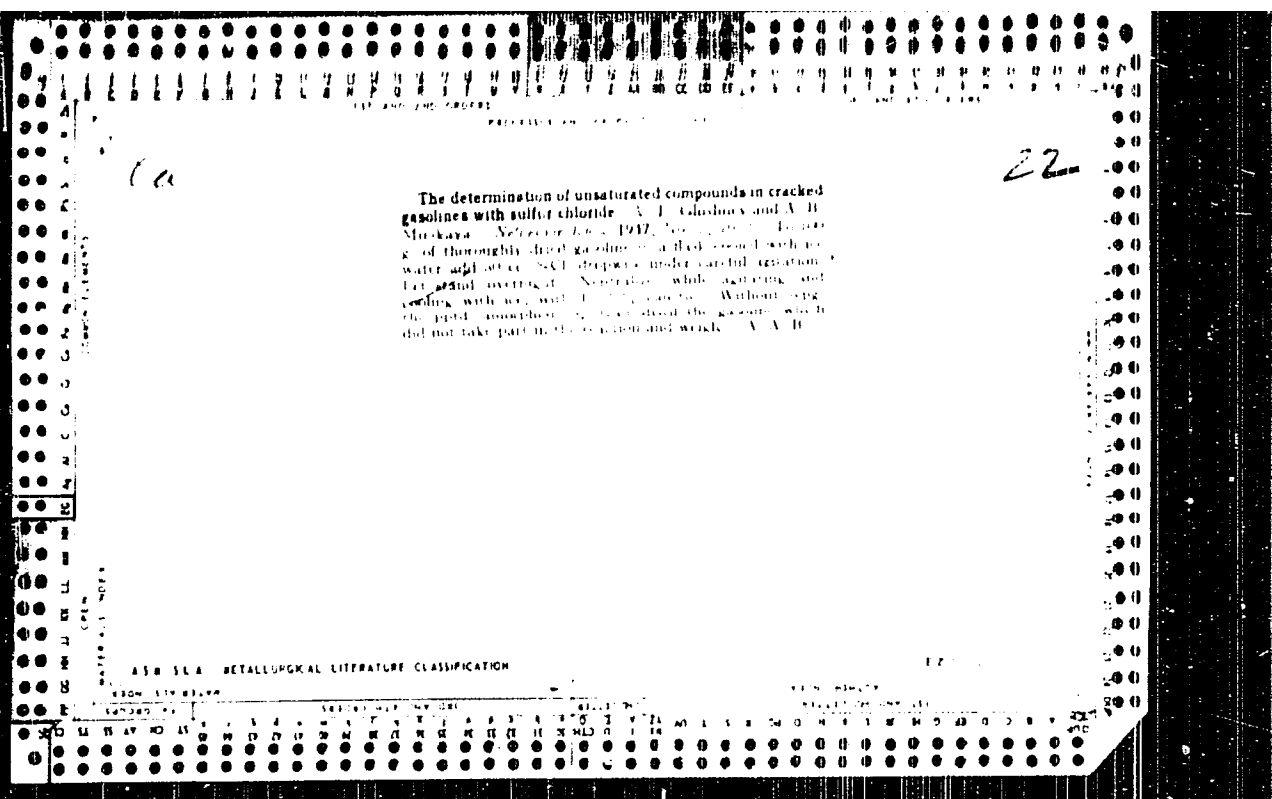
(Coal preparation)

REMESNIKOV, I., kand.tekhn.nauk; GLUSHNEV, S., inzh.

Magnetic screen for coal preparation. Tekh.mol. 30 no.10:4.
'62. (MIRA 15:12)
(Coal preparation plants--Equipment and supplies)
(Magnetic separation of ores)

GLUSHNEV, S.V.; DEMIDOV I.G.; SPERANSKYA, G.V.

Centrifugal preparation of petrographically heterogeneous
Kuznetsk Basin coals. Trudy IGI 20:3-9 '63. (MIRA 17:8)



The low temperature cracking of petroleum products under pressure in the presence of zinc chloride.

The authors report on the results of the study of the low temperature cracking of petroleum products under pressure in the presence of zinc chloride.

The study was carried out on a specially designed apparatus. The low temperature cracking of petroleum products under pressure in the presence of zinc chloride was studied. The results of the study show that the low temperature cracking of petroleum products under pressure in the presence of zinc chloride is a promising method for the production of high quality products. The authors also mention that the low temperature cracking of petroleum products under pressure in the presence of zinc chloride is a promising method for the production of high quality products.

M. H. Gerasimov
V. E. Glushnev
S. N. Solodkov

[illegible]

22

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

Vapor phase refining of cracked gasoline. Dobrovat
method: with solid zinc chloride on pumice stone. V. L.
Glyzhnev, S. N. Solodov and M. N. Sharomov. *Vysk.*
khim. 1938, No. 6, 115. The samples predominantly
treated with 5-16% NaOH, passed through the ZnCl₂
unit in the vapor phase, yielded a gasoline with a higher
induction period and lower acidity (the latter being more
reduced by washing with water), a lower initial content of
actual gums and a greater yield of low boiling fractions
than gasoline which was not treated with NaOH. The
stability of the gasoline is higher than of those which were
not treated with ZnCl₂, even in the absence of inhibitors.
These gasolines have an increased content of light frac-
tions, and this phenomenon is being further investigated.
It is intended to replace pumice stone with a cheaper
carrier. Catalyst consumption 0.3%. Alpha naphthol
and wood tar inhibitors also were used. The expts. are
described in detail. A. A. Boshnitskiy.

ASB-SL-1 METALLURGICAL LITERATURE CLASSIFICATION

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

EXPOSURE

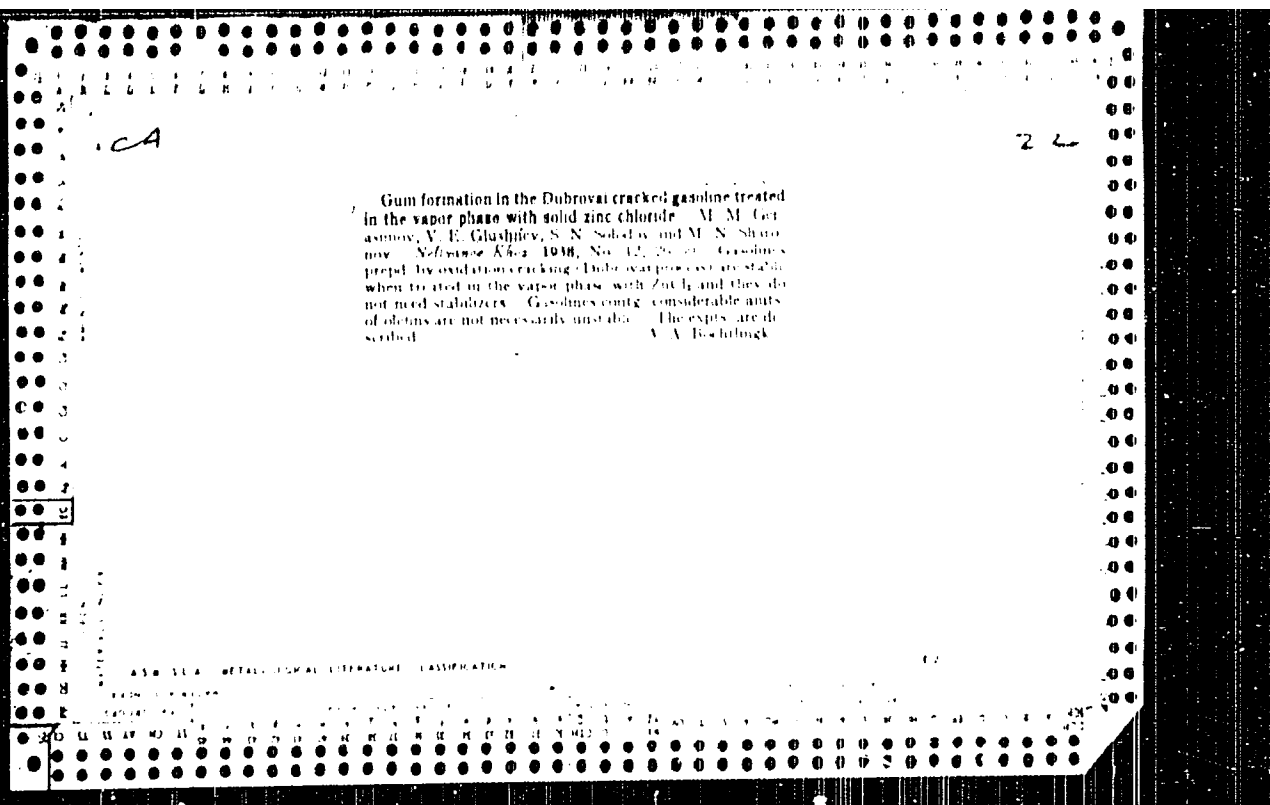
EXPOSURE

EXPOSURE

EXPOSURE

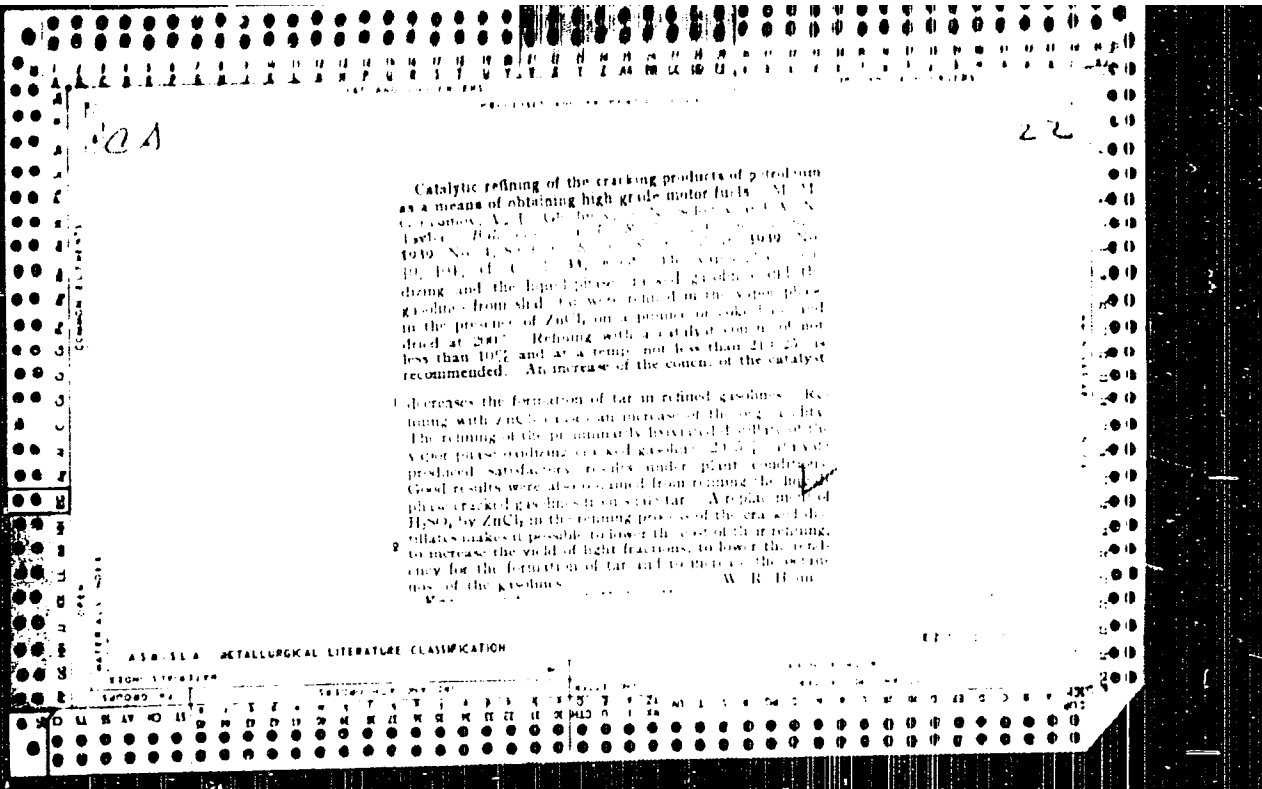
EXPOSURE

EXPOSURE



The vapor phase oxidation cracking of petroleum products. I. I. Berents and V. I. Glushko. *Russ. Acad. Sci. U. R. S. S., Trans. Acad. Sci. 1939, No. 3, 55-140, Khim. Referat Zhur.* 1939, No. 11, 194-2. Oxidation cracking of gasoline was studied in an iron lab. app. of 100 cc. capacity and in a large-scale lab. equipment (500 cc.). An increase of the concn. of O in the mixt. leads to an increase of the velocity of the reaction. The reaction is of the 1st order. Energies of activation were detd. In oxidation cracking a greater transformation of hydrocarbons and a more aromatization are obtained at lower than at higher temps. W. R. Henn.

ASH 51.6 METALLURGICAL LITERATURE CLASSIFICATION



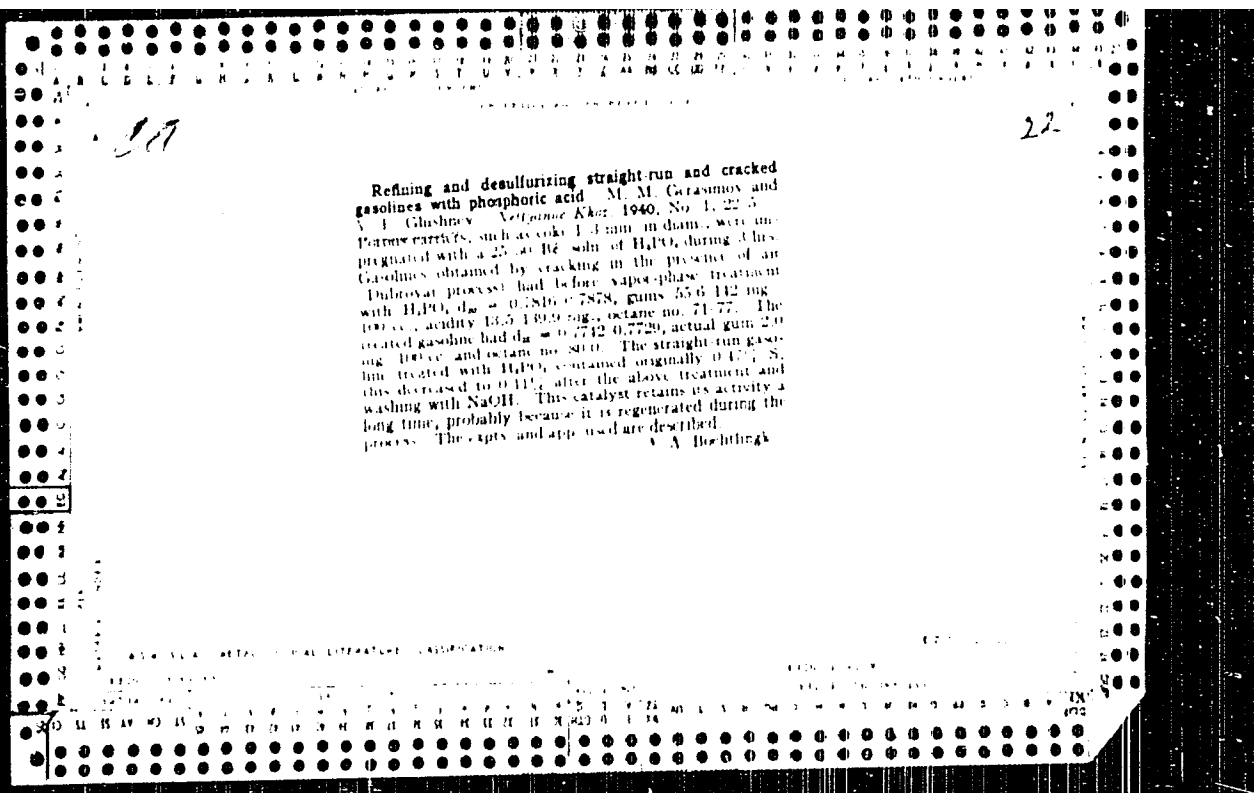
Catalytic refining of liquid-phase cracked gasoline in the vapor phase with solid zinc chloride on a carrier. M. M. Kuznetsov, A. F. Boshkov, N. N. Shostakov, A. N. Pavlov and M. N. Sharenko. *Neftokhimiya*, 1939, No. 3, 41-43, 11, 12, 14, 20-21. Vapor-phase treatment of cracked gasoline with ZnCl₂ deposited on coke permits operation with smaller losses and yields a higher grade gasoline which is more susceptible to PbEt₂ than gasoline treated in the conventional manner. The lab-scale expts. are described in detail. A. A. Boshkov.

ASH S.C.A. METALLURGICAL LITERATURE CLASSIFICATION

1111-1111-11

Catalytic refining of cracked gasoline with zinc chloride
M. M. Gerasimov and V. E. Gilyuzov. *Novosil* 1939, No. 11, 12, 35-36. The vapor of crude petroleum distillate heated to 220-300° is allowed to pass through a rectifying column packed with 15 cm. of coke, covered with $ZnCl_2$ (20% by wt. of coke) from a $ZnCl_2$ solution of 10-20 Be. Unstable unsaturated and tar-like substances are polymerized and are removed from the column. The gasoline vapor is passed through the rectifying column and is washed free of residual acidity with water. The fraction up to 100° and from the liquid phase process distillate and heavy fractions are of 74.0% purified with 0.2% of $ZnCl_2$ and with 1.5 H₂SO₄ (sp. gr. 1.84) yielded polymers of sludge 9.0 and 17.8%, and refined gasoline 91.0 and 82.2%, and had octane nos. 77.5 and 74.5. A. A. P.

ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION



Refinery treatment of liquid phase cracked gasoline with zinc chloride. M. M. Cavanaugh, A. E. Coudry, and J. Vanders, and J. N. Sweeney. *Natl. Pet. Ref. Ass. Trans.* 1940 No. 2, 23-31 of proceedings of the Lake Charles 25th 12th annual meeting presented with a ZnCl₂ solution of 16 to 12 wt. % and dried, thus the carrier contained on the surface about 10% ZnCl₂ by wt. The cracked gasoline was washed with water and then had a 20% activity of ZnCl₂ solution period 240 min. without inhibitor and Line SS 4. This gasoline treated in the vapor phase with ZnCl₂ gave a product of the same grade as that obtained in the lab. equipment. A. A. B.

Gasoline of high octane number by means of alkylation
M. M. Gerasimov and V. E. Glushnev, *Nefteprom*
Kiev, 1940, No. 3, 25 R. - A review with 21 references.
A. A. Bozholevsk

ASB 31.8 METALLURGICAL LITERATURE CLASSIFICATION

CA
Cracking of tar (freed from gasoline) from the Gdov deposit shales. M. M. Gerasimov and V. E. Glushnev. *Bull. Acad. Sci. USSR Div. Chem. Tech.* 1940, No. 1, 20-35. Liquid phase cracking in the autoclave produces up to 20% of the crude oil of motor gasoline. The liquid phase cracking produces heavier motor gasoline than does vapor phase cracking. The content of unsat. hydrocarbons in gasoline obtained from liquid phase cracking is considerably lower than that of the vapor phase cracking. The compns. of gases (in wt. %) obtained from cracking at 375° for 2 hrs. and at 400° for 2 hrs. were, resp.: CO₂ 11.9 and 9.8, C₂H₄ 2.6 and 2.2, CO 11.8 and 9.7, H₂

2.2 and 9.7, C₂H₆ 1.1 and 70.1. All modern types of processes used in the petroleum industry (cracking, polymerization of the cracked gases, refining, etc.) can be used to treat shale tars to obtain motor gasoline. Gases of the vapor phase cracking are of a considerable interest because their unsat. fraction reaches 40%. Isopropyl ether (a component of aviation gasoline which is used to increase its octane no.), EtOH and high-grade polymerized gasoline can be obtained from vapor phase cracking at 375° without any appreciable formation of coke. Investigations of the Gdov shale tar showed that these tars can be transformed by cracking into motor fuel and that high-grade Diesel fuel can be obtained simultaneously. In the cracking of the kerosene-soluble fraction of shale oil it is recommended to use the vapor phase scheme of cracking with the inclusion of the polymerization of the cracked

22

14

22

Distillation of shale tar cracked distillates with zinc chloride. M. M. Gerasimov, V. E. Glushin, and I. S. N. Solodov. *Refr. Zhurn.* 1940, No. 5, 15. (Chem. Abstr. 34, 8274). Refining cracked gasolines with H₂SO₄ does not produce a stable product. Losses from H₂SO₄ are increased three times when the gasolines with ZnCl₂ are treated. Losses from H₂SO₄ refining gasolines with ZnCl₂ are reduced. The vapor phase of shale gasolines with solid ZnCl₂ produces a stable gasoline with 1.5 hr. induction period, owing to the presence of natural inhibitor, and with a small content of the neutral fraction. The vapor phase shale gasolines refined with ZnCl₂ (2.5% fraction) had the following characteristics: density after refining and washing with water 1.4 mg. of KOH per 100 cc. of gasoline, octane no. 71, resin content 0.8 mg. per 100 cc. It contained: neutral compounds 6.0%, naphthenes 3.0%, paraffins 36.5%. Distillation according to Engler yielded beginning of boiling 71° up to 80° 1.8%, to 90° 6.0%, to 100° 11.0%, to 110° 24.0%, to 120° 34.5%, to 130° 42.5%, to 140° 51.0%, to 150° 58.5%, to 160° 62.0%, to 170° 71.0%, to 180° 79.0%, to 190° 87.0%, to 200° 91.8%, to 210° 93.8%, final boiling temp. 216°. The total yield was 96%. Results of the experiments showed that the method can be used for obtaining cracked shale tar gasolines. Refining the crude cracked shale distillate with ZnCl₂ produces a gasoline suitable for motor fuel. Eight references.

W. R. Hem

22

Modern methods of refining and desulfurizing cracked
gasolines M. M. Gerasimov and V. L. Glezluka
Neftekhim. Prom. S. S. S. R. 1940, No. 5, 23-25. A
review of methods used in Russia and in the United States
with 23 references. A. A. Froshchinsk

ASAC-SLA #FALLUONICAL LITERATURE CLASSIFICATION

GLUSHNEV, V. Ye. and GERASIMOV, M. M.

"Natural Petroleum Gases and Cracking Gases of the USSR and Their Processing Methods," Iz. Ak. Nauk SSSR, Otdel Tekh.Nauk, No.5, pp 135-36, 1940

Translation W-24554, 25 Nov 52

EA

22

Degree of refining of cracked gasoline is dependent upon the amount of zinc chloride on the carrier. M. M. Gerasimov and V. E. Glushnev, *Neftyanaya Tekhnika*, No. 7, 1940, No. 7, 20-21, of C. E. 31, 1940.

According to the experiments carried out on a laboratory apparatus, the gum formation is lowered with an increase in the amount of ZnCl₂ per unit on coke (ratio of ZnCl₂ to coke 10:21 and 80:1). During the treatment, compounds of ZnCl₂ with tar acids are formed, lowering the activity of the catalyst. The catalyst can be reactivated by flushing with hot refined gasoline, or then reactivated for a long time.

A. A. Bockelings

CH

22

Preliminary extraction of distillates of the liquid phase cracking in the treatment with zinc chloride. *ST. Ak. Khim. i Neft. Prom. SSSR*, 1940, No. 7, 8, 33-35; cf. *CA*, **30**, 11747. All experiments were undertaken with a 1% deposit of ZnCl₂ on coke (size of grain 1-3 mm.) at 220-230° and a feed rate of 30 cc. per hr. A pressure distillate which was not purified and not oxid. (preliminarily with NaOH, but in one case treated with NaHCO₃) and is azeotropic with NaOH has a greater induction period without inhibitor and is lower in potential gum. The amt. of actual gum is also lower for the unpurified and untreated pressure distillate. The same is true for light and automobile gasolines obtained in the process of refining a distillate with ZnCl₂ that had not been first treated with NaOH, i. e., they have a longer induction period (without the inhibitor) and a smaller amt. of potential gum. Thus, better results are obtained with pressure distillates as well as with gasolines without a preliminary treatment or purification. *Abstracted*

A. A. Ben-Hurich

A S B S L A METALLURGICAL LITERATURE CLASSIFICATION

Abstract:

503200 440 JUN 30

11. 34

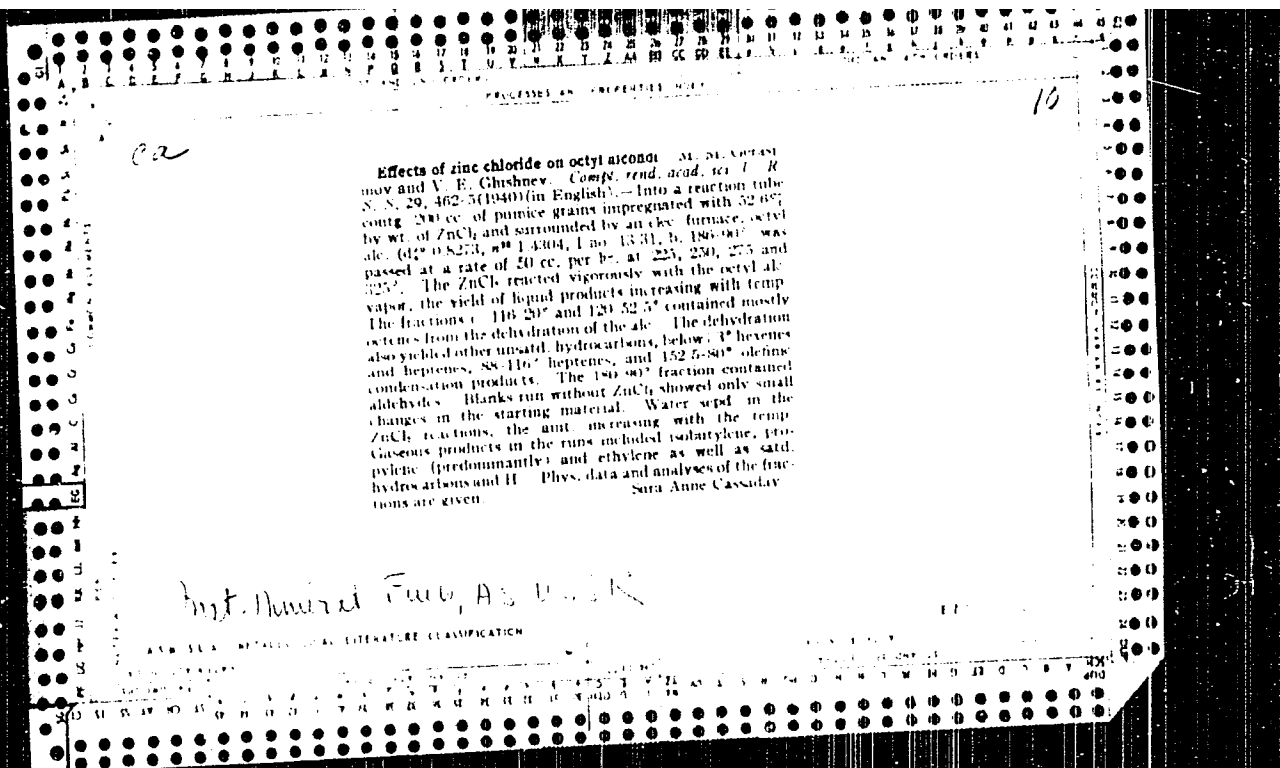
1 1 194 20,000 1 2 194

11-11-68 10:00 AM

KAFELYUSHNINOV, M. A., Corr Memb of Academy of Science; GURANOV, I. M.; GLISHEV, M. Ye.

"Modern Methods of Processing Petroleum Gas into High Octane Fuel," Izv. Ak. Nauk USSR, Otd. I. Tekh. Nauk, No. 8, 1940. Submitted 25 Jan 1940.

Report U-1940, 15 Oct 1951



2033. FORMATION OF LIGHT BENZINE WITH INCREASED OCTANER NUMBER FROM PRESSURE DISTILLATE OF SOVIENT TWO FURNACE CRACKING BY THE METHOD OF $ZnCl_2$ REFINING. Glushenev V E and Gerasimov M M (Bull acad sci U.R.S.S., Classe sci tech 1942, No. 3/4, 3-10; Chem Abst 1943; 39, 801). Lab. expts showed that the refining of pressure distillate by $ZnCl_2$ produced benzine (gasoline) of 75-8 octane no. Treatment of the same pressure distillate by clay or H_2SO_4 does not give a product of this quality. The $ZnCl_2$ product is more stable, as shown by the longer induction period.. At least 50% of high quality gasoline can be obtained in this process.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

USSR/Petroleum - Cracking
Gasoline - Production

Dec 1946

"The Dehydrogenating Action of Zinc Chloride in the Refining of Gasoline Produced by Vapor Phase Oxidation Cracking," V. Ye. Glushakov, N. G. Bulgakova, 7 pp

"Iz Ak Nauk, Otd Tekh Nauk" No 12, pp. 1612-20

The presence of a dehydrogenating action is established in the refining of gasoline by oxidizing cracking with zinc chloride. The dehydrogenating reaction under the influence of zinc chloride can be due to the presence of some saturated spirals as well as cyclic ketones in gasoline oxidation cracking.

ID

27T83

CA

Oxidative reforming of gasolines of the Lubanov-Du
vonian petroleum. S. I. Vasil'ev and V. I. Glushko.
Izv. Akad. Nauk S.S.S.R., Khim. Tekh. Nauk 1947,
825-8; *Chem. Abstr.* 41, 7717k. Oxidative reforming of high-S
Devonian crude oil was found to give good yields without
recycling, operated at approx. 100 atm. pressure with no coke
formation in the reaction zone, and yielded a product with
low S and relatively high aromatic content. The crude oil
was treated in a dist. app. processing 0.5-1 kg./hr. by heat-
ing to 450-500°, mixing with O₂ with or without heated
steam, heating the mixt. to 540-600°, and sep. the cracked
products. The liquid products were rectified and the
distillate was worked up with 50% NaOH soln. for separa-
tion of compounds. In 1 part of the S. Further characterization of S
was effected by catalytic treatment in the vapor phase by
solid ZnO. In 10 experiments the following data were ob-
tained on 1) gasoline from straight distillate of Devonian
crude oil; 2) the lower-boiling fraction from oxidative
reforming, further purified with ZnCl₂; and 3) the higher-
boiling fraction (motor gasoline) from oxidative reform-
ing, resp. yield, wt. %, of crude oil, 26, 56.3, 69.5; sp.
gr., 0.729, 0.731, 0.741; initial b.p., 25, 62, 170-180°;
b.p., 130, 140, 150°; end b.p., 242, 160, 195°; S, 0.028,
0.028, 0.028; unsatd. compds., 1.98, 16.72,
14.51; aromatics, 18.42, 22.60, 23.64; naphthene, 1.1,
20.7, 16.86; 20-45% paraffins, 1.1, 20.2, 13.82; 41-60%
naphthene, 1.09, 63.7, 61, with 1 ml. PbO₂,
50.0, 1.04, with 2 ml. PbO₂, 61.1, 50.5, with
4 ml. PbO₂, 85.8. In this expt. 24.6% unsatd.
crude oil) of gas was produced, consisting of 67% S, C
hydrocarbons.

CA

Catalytic desulfurization of reforming gasoline with phosphoric acid and zinc chloride. V. E. Glushnev and S. P. Vasil'ev. *Izv. Akad. Nauk S.S.S.R., Khim. Tekh. Nauk* 1947, 829-33; cf. C.A. 38, 1867. Catalytic desulfurization of distillate from a high-S petroleum was investigated by using H_2PO_4 on activated carbon (I, ZnCl₂ on activated carbon (II), H_2SO_4 (III), and activated carbon (IV). Expts. with I, II, and IV were carried out in the vapor phase, and with III in the liquid phase. The distillate used in the expts. had S content 0.42%, before washing, 0.40% after washing with alkali soln., and octane no. 74.5. After catalytic treatment, percentage of S, octane no., and yield of gasoline (wt %) were: exp. I, 0.15, 74.91; II, 0.17, 71.80; III, 0.19, 65.5-85; IV, 0.40, 66.04. After passage of 25 vols. of distillate per vol. of catalyst, I was effectively regenerated by flushing with gasoline at 150-170° and drying. Complete exptl. data are tabulated. Nancy Carlson

ASB 35.8 METALLURGICAL LITERATURE CLASSIFICATION

GENSHREY, V. P.

S.F. Vosilen and V.P. Genshrey. File for clinical research, p. 1. 1976

Institute of Biol,
Appl. of Sci., USSR

Sci. Med. Res. Center, Vol. 10, 1976

USSR /Chemical Technology. Chemical Products
and Their Application

I-16

Treatment of natural gases and petroleum.
Motor fuels. Lubricants.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31908

Author : Glushnev V. Ye., Nepryakhina A. V.

Inst : Petroleum Institute, Academy of Sciences USSR

Title : Chemical Composition of Gasolines of Primary
Oxidative Cracking

Orig Pub: Tr. In-ta nefti AN SSSR, 1954, 4, 31-37

Abstract: Bibliography 7 references.

Card 1/1

GLUSHNEV, V.Ye.; NEPRYAKHINA, A.V.; ANDREYEVA, T.P.

Characteristics of hydrocarbon composition of gasolines of
oxidative cracking and reforming. Trudy Inst.nefti 4:38-46 '54.
(Gasoline) (Hydrocarbons) (MERA 3:1)

Glushnev, V. E.

Stability of gasoline obtained by oxidative refining
Trudy Inst. Khim. 1976, 2

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515430002-1

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515430002-1"

37021

S/C31/62/C00/C09/C19/C75
B158/B101

5.4600

AUTHORS: Topchiyev, A. V., Polak, L. S., Chernyak, N. Ya.,
Glushnev, V. Ye., Glazunov, P. Ya., Vereshchinskiy, I. V.,
Syrtsov, N. P., Bregor, A. Kh., Vaynshteyn, B. I.

TITLE: Radiation-heat cracking of hydrocarbons

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 74 - 75,
abstract 9B513 (Sb. "Radioakt. izotopy i ikh dner. izlucheniya"
v nar. Kh-ve SSSR. v. I". M., Gostoptekhnizdat, 1961, 206-210)

TEXT: The low overall yield of radiolysis products from hydrocarbons at room temperature points to the absence of a chain reaction at that temperature. To examine the possibilities of a chain reaction in radiation cracking, n-heptane was irradiated by Co^{60} γ -rays at high temperatures. The samples were irradiated in 15 ml bulbs made of molybdenum glass with a wall thickness of 1 mm. The amount of liquid heptane was 0.25 ml and the pressure in the ampoules on vaporization 2.5 T/273 atm. To prevent local preheating of the walls, the bulb was rotated twice a second. The

Card 1/2

Radiation-heat cracking of hydrocarbons

3/091/62/000/009/019/075
B138/B101

radiation dose output calculated on 1 ml of liquid n-heptane was $2 \cdot 10^{13}$ Mev/sec. It is shown that radiation-heat cracking of n-heptane occurs at considerably lower temperatures than purely thermal cracking which needs a temperature of 500°C . The yield of liquid unsaturated hydrocarbons from radiation-heat cracking increases from 1.6 at room temperature to 340 at 450°C . The total radiation-chemical yield of low molecular hydrocarbons is 2000 at 400°C , being therefore $\sim 10^3$ times as great compared with the radiation-chemical yield of the same products at 20°C . By combining the radiation effect with temperature it is possible to obtain products which offer industrial interest at levels of yield which would be acceptable in practice. Possible sources of radiation for radiation-heat cracking are considered. [Abstracter's note: Complete translation.]

Card 2/2

GLUSHNEV 1/4

PHASE I BOOK EXPLOITATION

SOV/6177

Akademiya nauk SSSR. Institut neftekhimicheskogo sinteza

Radioliz uglevodorodov; nekotoryye fiziko-khimicheskiye problemy
(Radiolysis of Hydrocarbons; Some Physicochemical Problems)
Moscow, Izd-vo AN SSSR, 1962. 207 p. Errata slip inserted.
5000 copies printed.

Resp. Eds.: A. V. Topchiyev, Academician, and D. S. Polak,
Doctor of Physics and Mathematics; Ed.: L. T. Bugayenko;
Tech Ed.: Ch. A. Zentsel'skaya.

PURPOSE: This book is intended for physical and industrial chemists
interested in the properties and behavior of irradiated hydro-
carbons.

COVERAGE: The book gives a systematic presentation of the results
of research on the radiolysis of hydrocarbons carried out from
1957 through 1961 at the Laboratory of Radiation Chemistry,
Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petro-

Card 1/4

Radiolysis of Hydrocarbons (Cont.)

SCV/6177

chemical Synthesis, Academy of Sciences USSR). Although the results were obtained for individual compounds, they may be generalized and applied to other members of the same homologous series. The following persons participated in making the experiments and in writing the text: V. G. Beryezkin, V. E. Glushnev, Yu. A. Kolbanovskiy, I. M. Kustanovich, V. D. Popov, A. Ya. Temkin, V. D. Timofeyev, N. Ya. Chernyak, V. A. Shakh-ray, E. B. Shlikhter, A. S. Shcherbakova, B. M. Negodov, A. Z. Peryshkina, N. M. Pytova, T. A. Tegin, Yu. B. Emin, A. M. Brodskiy, V. V. Voyevodskiy, P. Ya. Glazunov, B. A. Smirnova, and Yu. L. Khait. References, mainly Soviet and English, follow individual chapters.

TABLE OF CONTENTS [Abridged]:

Foreword	3
Ch. I. Physicochemical Characteristics of Hydrocarbon Radiolysis	5
Card 2/4	

Radiolysis of Hydrocarbons (Cont.)	SOV/6177
Ch. II. The Kinetics of Hydrocarbon Radiolysis	23
Ch. III. Free Radicals in Hydrocarbon Radiolysis	64
Ch. IV. Radiolysis of Alkanes Adsorbed on Oxide Catalysts	93
Ch. V. Energy Transfer During Hydrocarbon Radiolysis	113
Ch. VI. Some Theoretical Problems of Hydrocarbon Radiolysis	145
A. Phenomenological kinetics of hydrocarbon radiolysis	145
B. Statistical theory of activation processes initiated by ionizing radiation in condensed systems	158

Card 3/4

Radiolysis of Hydrocarbons (Cont.)

SOV/6177

Ch. VII. Radiation-Thermal Cracking of Hydrocarbons

185

AVAILABLE: Library of Congress

SUBJECT: Oil and Gas Industries

Card 4/4

BN/clb/tem
1-18-63

5/844/62/000/000, 090/129
D287/D307

AUTHORS: Topchiyev, A. V., Vereshchinskiy, I. V., Glazunov, P. Ya.,
Glushnev, V. Ye., Polak, L. S., Ryabchikova, G. G., Si-
birskaya, G. K., Timofeyev, V. D. and Chernyak, N. Ya.

TITLE: Thermal cracking of hydrocarbons induced by irradiation

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po sradiatsionnoy Khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1964,
304-307

TEXT: The effect of irradiation on thermal cracking of heptane at thermal cracking temperatures was studied. The experiments were carried out in a countercurrent reactor, at constant throughput of the gas, using irradiation dosages of 7×10^{15} ev/sec/l and heptane. The rate of formation of gaseous products during radiation-induced and ordinary thermal cracking at 400 - 600°C was influenced by the reaction temperature. At temperatures above 500°C the relationship between the yield of products obtained by radiation and those obtained by ordinary thermal cracking was in a 4:1 ratio and radiation 1/2

Thermal cracking of ...

5/344/11/000, 070, 070, 1, 1,
D. 07, D. 07

tion-induced processes can therefore be carried out at much lower temperatures (150 - 200°C) than ordinary thermal cracking (300 - 500°C). Activation energy requirements are correspondingly only (21 kcal/mole as against 250 kcal/mole for thermal cracking). The yield of gases and liquid unsaturated compounds increased sharply with temperature and reached 15,000 mol 100 g at 200°C. At temperatures > 300°C the radiation yield became lower. The yield of unsaturated compounds increased sharply with temperature and reached 50% (as against 50 - 55% during ordinary thermal cracking). Optimum conditions for the above process were high doses of radiation and short contact times. There are 2 figures.

ASSOCIATION: Institut neftekhimicheskogo sinteza, AN SSSR (Institute of Petrochemical Synthesis, AS USSR); Institut fizicheskoy khimii, AN SSSR (Institute of Physical Chemistry, AS USSR)

Cont. 1/1

S/204/62/002/002/005/007
IO60/I242

AUTHORS: Topchiyev, A.V., Polak, L.S., Glushnev, V.Ye.,
Popov, V.T., Timofeyev, V.D., Glazunov, P.Ya.,
and Ryabchikova, G.G.

TITLE: Radiation-thermal cracking of petroleum hydrocarbons

PERIODICAL: Neftekhimiya, v.2, no.2, 1962, 196-210

TEXT: This is the first in a series of papers reporting on the basic problems of the radiation-thermal cracking (RTC) process. Investigation deals with the following subjects: 1. RTC of heptane under static conditions; 2. RTC in continuous process in a decreasing field; 3. RTC in a continuous process in a uniform field; 4. Influence of pressure on RTC; 5. RTC in a mixed field of α and γ radiations; 6. Calculation of kinetics, mechanism, and thermodynamic parameters of RTC, and its comparison with other types of cracking and pyrolysis.

Card 1/2

S/201/62/002/002/005/007
I060/I242

Radiation-thermal cracking...

This paper compares the first two methods with thermal cracking under the same conditions. The activation energy of the RTC process is very close to the activation energy of thermal cracking. With the rise in the temperature of the RTC process the yield of liquid and gaseous products increases sharply. The output of unsaturated compounds, both gaseous and liquid per unit of crude is considerably higher with the RTC method than with thermal cracking under the same conditions. The rate of the RTC process increases sharply through the action of ionizing radiation. There are 15 figures and 11 tables.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis, AS USSR) and Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry, AS USSR)

SUBMITTED: March 1, 1962

Card 2/2

L-58478-65 ENG(j)/EWT(m)/EPF(c)/ENP(j)/T/EMA(h)/EWA(c)/EWA(l) Pr-4/Pr-4/Peo RM
ACCESSION NR: AP5015241 UR/0285/65/000/009/0023/0023
541.15:547.313.2 35

AUTHOR: Glushnev, V. Ye.; Kolbanovskiy, Yu. A.; Patalakh, I. I.; Polak, L. S.;
Popov, V. I.; Shakhraev, V. A.

TITLE: Radiation-induced synthesis of organic compounds with various functional groups. Class 12, No. 170503

SOURCE: Byulleten' izobreteniy i tovarnykh znakov no. 9, 1965, 23

TOPIC TAGS: radiation, radiation induced synthesis

ABSTRACT: An Author Certificate has been issued for a radiation-induced synthesis of organic compounds having various functional groups, such as carboxylic acids, amines, nitro and nitroso compounds, thio compounds, alcohols etc. The method

as introduced in the presence of a catalyst, e.g., aluminum oxide or silica gel.

[SM]

Card 1/2

L 58478-65

ACCESSION NR: AP5015241

ASSOCIATION: none

SUBMITTED: 12Jun63

ENCL: 00

SUB CODE: GC, 44

NO REF SOV: 000

OTHER: 000

ATT PRESS: 4019

L 62081-65 EFF(c)/EFF(n)-2/4PR/EMI(3)/EMA(h)/IMP(3)/EMI(m)/EIA(1) Pa-1/Pa-1/
ACCESSION Nr: AP5016840 Pa-1/Pu-1/Feb GG/WW/RM DR/G2M/55/007/003/0363/0367
665.521.2.541.15:542.92 48

AUTHORS: Polak, L. S.; Glasunov, P. Ya.; Glushnev, V. Ye.; Ryabchikova, G. G. 40
B 7

TITLE: Radiative-thermal cracking of low octane straight-run distillation bottoms

in a uniform temperature field

SOURCE: Neftekhimiya, v. 5, no. 3, 1965, 363-367

TOPIC TAGS: benzene, distillation, reactor, radiation effect, thermal decomposition

ABSTRACT: The present work is a continuation of an earlier investigation. The present experiments were conducted with an improved electron source reactor in which a uniform temperature field could be established. Low-octane straight-run distillation benzene (with the end of boiling at 140C) was cracked at 500, 550, and 600C at the pump-through-velocity of 150 ml/hour in the reactor shown schematically. Yield and composition of the thermal and radiation-thermal cracking products of the same benzene in the reactors with and without a uniform temperature field were tabulated.